STIC Search


```
=> fil hcaplu
FILE 'HCAPLUS' ENTERED AT 12:05:26 ON 21 JAN 2003
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2003 AMERICAN CHEMICAL SOCIETY (ACS)
```



```
FILE COVERS 1907 - 21 Jan 2003  VOL 138 ISS 4
FILE LAST UPDATED: 20 Jan 2003  (20030120/ED)

 This file contains CAS Registry Numbers for easy and accurate
 substance identification.


=> d stat que
L1          1441 SEA FILE=REGISTRY CHITOSAN/BI
L2           470 SEA FILE=REGISTRY TREHALOSE/BI
L3         14115 SEA FILE=HCAPLUS L1 OR CHITOSAN?
L4          8404 SEA FILE=HCAPLUS L2 OR TREHALOSE?
L5            46 SEA FILE=HCAPLUS CONTAG?(L)BOVINE?(L)PLEUROPNEUMON? OR CCBPP
L6        297981 SEA FILE=HCAPLUS RINDERPEST OR ?RUMINANT? OR VIRUS OR MEASLES
                 OR MUMPS OR RUBELLA OR YELLOW(W)FEVER OR ?POLIO? OR NEWCASTLE(W
                 )DISEASE? OR L5
L7           148 SEA FILE=HCAPLUS L3 AND L6
L8             1 SEA FILE=HCAPLUS L7 AND L4


=> d ibib abs hitrn 18

L8   ANSWER 1 OF 1  HCAPLUS  COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2002:107078  HCAPLUS
DOCUMENT NUMBER:          136:166050
TITLE:                    Novel methods and compositions to upregulate, redirect
                          or limit immune responses to peptides, proteins and
                          other bioactive compounds and vectors expressing the
                          same
INVENTOR(S):              Bot, Adrian; Dellamary, Luis; Smith, Dan J.; Woods,
                          Catherine M.
PATENT ASSIGNEE(S):       Alliance Pharmaceutical Corp., USA
SOURCE:                   PCT Int. Appl., 80 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   3
PATENT INFORMATION:

     PATENT NO.        KIND  DATE          APPLICATION NO.  DATE
     ---------------   ----  --------      ---------------  --------
     WO 2002009674      A2   20020207      WO 2001-US24038  20010730
```

Searched by M. Smith

W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EC, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2000-221544P P 20000728

AB Novel compns. are disclosed which can induce or enhance an immune response against foreign or self antigens (microbial or parasitic) or modulate (suppress) the activity of pathogenic cells in inflammatory or autoimmune diseases. Compns. and methods are taught in how to limit the generation of an immune response against formulated peptides and proteins with application in antibody therapy or hormone replacement therapy. Methods of suppressing autoimmunity are also disclosed which use ligands for cellular receptors expressed on cells of the innate immune system and more specifically for down-regulation of autoimmune processes by either deletion or induction of anergy at the level of autoreactive T cells or by triggering active-suppressor T cells that down-regulate the activity of pathogenic cells.

IT **99-20-7, Trehalose 9012-76-4, Chitosan**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(novel methods and compns. to modulate and control immune responses and immune disorders)

=> d stat que
L1 1441 SEA FILE=REGISTRY CHITOSAN/BI
L3 14115 SEA FILE=HCAPLUS L1 OR CHITOSAN?
L9 1250 SEA FILE=HCAPLUS COACERVATE?
L10 25 SEA FILE=HCAPLUS L9 AND L3
L11 4 SEA FILE=HCAPLUS L10 AND (DRY? OR DESSICAT?)

=> d ibib abs hitrn l11 1-4

L11 ANSWER 1 OF 4 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:616705 HCAPLUS
DOCUMENT NUMBER: 136:205314
TITLE: **Chitosan**-alginate-CaCl2 system for membrane coat application
AUTHOR(S): Wang, Lishan; Khor, Eugene; Lim, Lee-Yong
CORPORATE SOURCE: Department of Chemistry, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Pharmaceutical Sciences (2001), 90(8), 1134-1142
CODEN: JPMSAE; ISSN: 0022-3549
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Water-based formulations are preferred for membrane coat application because they do not require the use of noxious solvents. A novel aq. **chitosan**-alginate-CaCl2 system was evaluated as a potential formulation to produce water-insol. membranes of biodegradable polymers. **Chitosan**-alginate **coacervates** were prepd. by controlled

reaction of **chitosan** (0.25% w/v) and sodium alginate (0.25% w/v) solns. Coherent membranes were obtained by casting and **drying** the **coacervates** suspended in aq. CaCl2 solns. (0.05-0.07% w/v). Increasing the calcium content did not modify membrane thickness (25-26 .mu.m), but reduced the water vapor transmission rate from 658 to 566 g/m2/day, and improved the tensile strength of the membranes from 9.33 to 17.13 MPa. Differential scanning calorimetry, Fourier transform IR spectroscopy, and elemental analyses of the **chitosan**-alginate **coacervates** indicated they were stable for up to 4 wk of storage in distd. water at ambient temp. Membranes of the stored **coacervates** required less calcium to attain max. mech. strength. They also had higher water vapor transmission rates than corresponding films prepd. from fresh **coacervates**. On the basis of the properties of the cast film and its storage stability, the **chitosan**-alginate-CaCl2 system can be considered for potential membrane coat application.

IT **9012-76-4, Chitosan**
RL: PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**chitosan**-alginate-CaCl2 system for membrane coat application)

REFERENCE COUNT: 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 2 OF 4 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:533033 HCAPLUS
DOCUMENT NUMBER: 136:90822
TITLE: **Chitosan**-alginate films prepared with **chitosans** of different molecular weights
AUTHOR(S): Yan, Xiao-Liang; Khor, Eugene; Lim, Lee-Yong
CORPORATE SOURCE: Department of Pharmacy, National University of Singapore, Singapore, 119260, Singapore
SOURCE: Journal of Biomedical Materials Research (2001), 58(4), 358-365
CODEN: JBMRBG; ISSN: 0021-9304
PUBLISHER: John Wiley & Sons, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB **Chitosan**-alginate polyelectrolyte complex (CS-AL PEC) is water insol. and more effective in limiting the release of encapsulated materials compared to **chitosan** or alginate. Coherent CS-AL PEC films have been prepd. in our lab. by casting and **drying** suspensions of **chitosan**-alginate **coacervates**. The objective of this study was to evaluate the properties of the CS-AL PEC films prepd. with **chitosans** of different mol. wts. Films prepd. with low-mol.-wt. **chitosan** (Mv 1.30.times.105) were twice as thin and transparent, as well as 55% less permeable to water vapor, compared to films prepd. with high-mol.-wt. **chitosan** (Mv 10.0.times.105). It may be inferred that the low-mol.-wt. **chitosan** reacted more completely with the sodium alginate (Mv 1.04.times.105) than **chitosan** of higher mol. wt. A threshold mol. wt. may be required, because **chitosans** of Mv 10.0.times.105 and 5.33.times.105 yielded films with similar phys. properties. The PEC films exhibited different surface properties from the parent films, and contained a higher degree of chain alignment with the possible formation of new crystal types. The PEC films exhibited good in vitro biocompatibility with mouse and human fibroblasts, suggesting that they can be further explored for biomedical applications.

IT **9012-76-4, Chitosan**

RL: BSU (Biological study, unclassified); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PRP (Properties); USES (Uses)
(**chitosan**-alginate films prepd. with **chitosans** of different mol. wts.)
REFERENCE COUNT: 16 THERE ARE 16 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 3 OF 4 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:380368 HCAPLUS
DOCUMENT NUMBER: 134:371625
TITLE: Personal care articles comprising anionic polymer **coacervate** compositions
INVENTOR(S): Smith, Edward Dewey, III; Beerse, Peter William
PATENT ASSIGNEE(S): The Procter + Gamble Company, USA
SOURCE: PCT Int. Appl., 61 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001035924	A1	20010525	WO 2000-US31935	20001120
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000015656	A	20020806	BR 2000-15656	20001120
EP 1229899	A1	20020814	EP 2000-982177	20001120
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 1999-166587P P 19991119
WO 2000-US31935 W 20001120

AB The present invention relates to a substantially **dry**, disposable personal care article comprising: (a) a water insol. substrate comprising a nonwoven layer; and (b) a therapeutic benefit component, disposed adjacent to said water insol. substrate, wherein said component comprises from about 10 to about 1000 , by wt. of the water insol. substrate, of a therapeutic benefit compn. comprising: (1) a safe and effective amt. of anionic polymer; (2) a safe and effective amt. of a cationic surfactant; wherein said compn. forms a **coacervate** when said article is exposed to water. These articles have been found to be particularly useful for personal cleansing applications, namely for the skin and hair. Thus, the present invention further relates to methods of cleansing and/or therapeutically treating (e.g., conditioning) skin and hair utilizing the articles of the present invention. A representative powdery cleansing component for the article of present invention is prepd. comprising soap 80.16, water 11.50, stearic acid 5.70, sodium chloride 1.10, EDTA 0.25, perfume 1.15, and misc. (including pigments) 0.14%.

IT **66267-50-3**, **Chitosan** lactate (salt)
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)

(personal care articles comprising anionic polymer **coacervate** compns.)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L11 ANSWER 4 OF 4 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:380367 HCAPLUS
DOCUMENT NUMBER: 135:9825
TITLE: Personal care articles comprising cationic polymer **coacervate** compositions
INVENTOR(S): Beerse, Peter William; Smith, Edward Dewey, III
PATENT ASSIGNEE(S): The Procter + Gamble Company, USA
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001035923	A1	20010525	WO 2000-US31677	20001117
W: AE, AG, AL, AM, AT, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, CZ, DE, DE, DK, DK, DM, DZ, EE, EE, ES, FI, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
BR 2000015655	A	20020806	BR 2000-15655	20001117
EP 1229898	A1	20020814	EP 2000-980500	20001117
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				

PRIORITY APPLN. INFO.: US 1999-443545 A 19991119
WO 2000-US31677 W 20001117

AB The present invention relates to a substantially **dry**, disposable personal care article comprising: (a) a water insol. substrate comprising a nonwoven layer; and (b) a therapeutic benefit component, disposed adjacent to said water insol. substrate, wherein said component comprises from about 10 to about 1000, by wt. of the water insol. substrate, of a therapeutic benefit compn. comprising: (1) a safe and effective amt. of cationic polymer exhibiting a relative hydrophobic contribution of from about 0.2 to about 1.0; (2) a safe and effective amt. of an anionic surfactant; wherein said compn. forms a **coacervate** when said article is exposed to water. These articles have been found to be particularly useful for personal cleansing applications, namely for the skin and hair. These articles have been found to be particularly useful for personal cleansing applications, namely for the skin and hair. Thus, the present invention further relates to method of cleansing and/or therapeutically treating (e.g., conditioning) skin and hair utilizing the articles of the present invention. A representative powdery cleansing component for the article of present invention is prepd. comprising soap 80.16, water 11.50, stearic acid 5.70, sodium chloride 1.10, EDTA 0.25, perfume 1.15, and misc. (including pigments) 0.14%.

IT **66267-50-3, Chitosan** lactate (salt)
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES

(Uses)
(personal care articles comprising cationic polymer **coacervate** compns.)
REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

```
=> d stat que
L1          1441 SEA FILE=REGISTRY CHITOSAN/BI
L2           470 SEA FILE=REGISTRY TREHALOSE/BI
L3         14115 SEA FILE=HCAPLUS L1 OR CHITOSAN?
L4          8404 SEA FILE=HCAPLUS L2 OR TREHALOSE?
L5            46 SEA FILE=HCAPLUS CONTAG?(L)BOVINE?(L)PLEUROPNEUMON? OR CCBPP
L6        297981 SEA FILE=HCAPLUS RINDERPEST OR ?RUMINANT? OR VIRUS OR MEASLES
                 OR MUMPS OR RUBELLA OR YELLOW(W)FEVER OR ?POLIO? OR NEWCASTLE(W
                 )DISEASE? OR L5
L7           148 SEA FILE=HCAPLUS L3 AND L6
L8             1 SEA FILE=HCAPLUS L7 AND L4
L12           41 SEA FILE=HCAPLUS L6 AND (?VACCIN? OR IMMUNO?)(L) L4
L13           41 SEA FILE=HCAPLUS L12 NOT L8
L14           17 SEA FILE=HCAPLUS L13 (L) (PRESERV? OR STABIL?)
L15           16 SEA FILE=HCAPLUS L14 NOT (FREES? OR CRYO?)


=> d ibib abs hitrn l15 1-16

L15 ANSWER 1 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER:         2002:977595 HCAPLUS
DOCUMENT NUMBER:          138:44655
TITLE:                    Adjuvant composition for mucosal and injection
                          delivered vaccines
INVENTOR(S):              Gerber, Jay Dean
PATENT ASSIGNEE(S):       USA
SOURCE:                   PCT Int. Appl., 33 pp.
                          CODEN: PIXXD2
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   1
PATENT INFORMATION:

     PATENT NO.          KIND  DATE          APPLICATION NO.  DATE
     ------------------  ----  --------      ---------------  --------
     WO 2002102305       A2    20021227      WO 2002-US18158  20020611
         W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
            GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR,
            LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH,
            PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ,
            UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU,
            TJ, TM
         RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH,
            CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR,
            BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
     US 2003003105       A1    20030102      US 2001-884201   20010619
PRIORITY APPLN. INFO.:                      US 2001-884201   A  20010619
AB   An adjuvant for vaccines comprising lecithin and a polymer, whereby the
     polymer is preferably polyacrylic acid.
IT   99-20-7D, Trehalose, dimycolate esters
     RL: PEP (Physical, engineering or chemical process); PYP (Physical
```

process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(adjuvant compn. for mucosal and injection-delivered **vaccines**
)

L15 ANSWER 2 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:444388 HCAPLUS
DOCUMENT NUMBER: 137:10950
TITLE: Rotavirus vaccine formulations containing a sugar
INVENTOR(S): Burke, Carl J.; Volkin, David B.
PATENT ASSIGNEE(S): Merck & Co., Inc., USA
SOURCE: U.S., 25 pp., Cont.-in-part of U.S. 5,932,223.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6403098	B1	20020611	US 1999-366616	19990803
ZA 9708586	A	19980615	ZA 1997-8586	19970925
US 5932223	A	19990803	US 1997-938260	19970926
WO 2001008495	A1	20010208	WO 2000-US21264	20000803
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 1206189	A1	20020522	EP 2000-955357	20000803
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL				

PRIORITY APPLN. INFO.:

US 1996-26754P	P	19960926
US 1997-46760P	P	19970516
US 1997-938260	A2	19970926
US 1999-366616	A	19990803
WO 2000-US21264	W	20000803

AB The present invention provides liq. and lyophilized formulations of vaccines against rotavirus infection and methods of their prepn. The formulations include buffering agents appropriate for oral administration of rotavirus vaccines. The formulations also include compds. to **stabilize** the vaccine compns. against loss of potency. For example, 1-yr probe **stability** data were obtained for several optimized lyophilized and liq. formulations of G1 and P1 rotavirus at various temps. and compared to the **stability** data of an unoptimized formulation, Williams' E (WE) medium/5% sucrose. Optimized liq. formulations contg. rotavirus reassortants in WE medium contg. sucrose, sodium phosphate, and sodium succinate or sodium citrate showed a substantial improvement in **stability**. Further improvements in storage **stability** were obsd. for lyophilized formulations. With the appropriate formulation, the thermostability of rotavirus exceeds that of existing live-**virus** liq. (i.e., OPV) and lyophilized (e.g., **measles**) vaccines. The **stabilizing** effect of either the succinate/phosphate or the citrate/ phosphate buffers offers the potential of combining **stability** enhancement with a gastric neutralization. Liq. formulations as well as lyophilized formulations

that can be reconstituted using this buffer can allow the formulation to be delivered in a single administration.

IT **99-20-7, Trehalose**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(prepn. of rotavirus oral **vaccine** formulations)

REFERENCE COUNT: 38 THERE ARE 38 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 3 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:316286 HCAPLUS
DOCUMENT NUMBER: 137:357986
TITLE: Pharmaceutical and immunological evaluation of a single-shot hepatitis B vaccine formulated with PLGA microspheres
AUTHOR(S): Shi, Li; Caulfield, Michael J.; Chern, Rey T.; Wilson, Roger A.; Sanyal, Gautam; Volkin, David B.
CORPORATE SOURCE: Department of Vaccine Pharmaceutical Research, Merck Research Laboratories, West Point, PA, 19486, USA
SOURCE: Journal of Pharmaceutical Sciences (2002), 91(4), 1019-1035
CODEN: JPMSAE; ISSN: 0022-3549
PUBLISHER: Wiley-Liss, Inc.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A single-shot Hepatitis B vaccine formulation using poly(d,l)-lactide-coglycolide acid (PLGA) microspheres as a delivery system was examd. using a variety of biophys. and biochem. techniques as well as immunol. evaluation in C3H mice. PLGA microsphere encapsulation of the Hepatitis B surface antigen (HBsAg), a lipoprotein particle, resulted in good recoveries of protein mass, protein particle conformational integrity, and in vitro antigenicity. Some partial delipidation of the HBsAg, however, was obsd. The loading and encapsulation efficiency of HBsAg into the PLGA microspheres were measured along with the morphol. and size distribution of the vaccine-loaded PLGA microspheres. The in vitro release kinetics of HBsAg from the PLGA microspheres was evaluated and found to be affected by exptl. conditions such as stirring rate. HBsAg showed enhanced storage **stability** at 37.degree.C in the slightly acidic pH range reported to be found inside PLGA microspheres; thus, the antigen is relatively stable under conditions of temp. and pH that may mimic in vivo conditions. The immunogenicity of the microsphere formulations of HBsAg was compared with conventional aluminum adjuvant formulated HBsAg vaccine in C3H mice. Comparisons were made between aluminum formulations (one and two injections), PLGA microsphere formulations (single injection), and a mixt. of aluminum and PLGA microsphere formulations (single injection). The nine-month serum antibody titers indicate that a single injection of a mixt. of aluminum and PLGA-formulated HBsAg results in equal or better immune responses than two injections of aluminum-formulated HBsAg vaccine. Based on these in vitro and in vivo studies, it is concluded that HBsAg can be successfully encapsulated and recovered from the PLGA microspheres and a mixt. of aluminum-adjuvanted and PLGA-formulated HBsAg can auto-boost an immune response in manner comparable to multiple injections of an aluminum-formulated vaccine.

IT **99-20-7, Trehalose**
RL: MOA (Modifier or additive use); USES (Uses)
(effects of solvents and sugars on properties of hepatitis B **vaccine** formulated with PLGA microspheres)

REFERENCE COUNT: 94 THERE ARE 94 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 4 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:212556 HCAPLUS
DOCUMENT NUMBER: 137:184055
TITLE: Enhanced immunogenicity of a hepatitis B **virus** peptide vaccine using oligosaccharide ester derivative microparticles
AUTHOR(S): Moynihan, Jennifer S.; Blair, Julian; Coombes, Allan; D'Mello, Felicity; Howard, Colin R.
CORPORATE SOURCE: Department of Pathology and Infectious Diseases, The Royal Veterinary College, London, NW1 0TU, UK
SOURCE: Vaccine (2002), 20(13-14), 1870-1876
CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier Science Ltd.
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Controlled release microspheres can overcome many of the disadvantages of multiple **vaccine** delivery such as rate of uptake and cost of administration. Proteins and peptides are difficult to administer using conventional polymers owing to protein degrdn., premature release and **stability**. Here we report the successful development of room temp. stable, controlled release formulations using oligosaccharide ester derivs. (OEDs) of **trehalose** and a synthetic peptide analog of hepatitis B surface antigen. Employing a range of different OED prepns., we have optimized the **immunogenicity** of the peptide formulation such that mice injected with a single prepn. of microspheres consisting of **trehalose** octaacetate (TR101; Group G) produce high titer anti-hepatitis B (anti-HBs) surface antigen antibodies. The kinetics of the immune response could be manipulated with different peptide/OED formulations and correlated with the OED compn. of the microspheres. Our data demonstrate the considerable potential of OED microspheres as novel delivery systems for **vaccines**. The ability to induce strong immune responses, without the requirement for multiple doses or cold-chain storage, could radically improve **vaccination** programs in developing countries.

IT **25018-27-3**, TR 101
RL: BSU (Biological study, unclassified); BIOL (Biological study)
(TR 101; enhanced **immunogenicity** of a hepatitis B **virus** peptide **vaccine** using oligosaccharide ester deriv. microparticles)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 5 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2002:142547 HCAPLUS
DOCUMENT NUMBER: 136:189316
TITLE: Oral solid dose vaccine
INVENTOR(S): Vande-Velde, Vincent
PATENT ASSIGNEE(S): Smithkline Beecham Biologicals S.A., Belg.
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002013858	A1	20020221	WO 2001-IB1711	20010814

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,

CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

AU 2001086168 A5 20020225 AU 2001-86168 20010814
PRIORITY APPLN. INFO.: GB 2000-20089 A 20000815
WO 2001-IB1711 W 20010814

AB The present invention relates to novel vaccine formulations suitable for oral administration. The vaccine formulations are in a solid form comprising antigen and suitable excipient, which after insertion into the mouth, rapidly dissolve in saliva, thereby releasing the vaccine into the mouth. Specifically, the solid form may consist of a cake of vaccine which is formed from a liq. soln. or suspension by sublimation, preferably sublimation by lyophilization. Preferred vaccines are those contg. antigens which are derived from pathogens that normally infect or invade the host through a mucosal membrane, or those vaccines that further comprises an antacid. Particularly preferred vaccines are combination vaccines that comprise more than one antigen, and more preferably when the antigens are from more than one pathogen. Lyophilized oral vaccines were prepd. contg. influenza antigens 30 .mu.g, sucrose 2, sorbitol 3, dextran T40 4, amino acids 2, xanthane 0.3% and calcium carbonate 80 mg.

IT **99-20-7, Trehalose**
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(oral solid dose **vaccine** contg.)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 6 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:903781 HCAPLUS
DOCUMENT NUMBER: 136:25088
TITLE: Powder compositions containing an antigen for vaccines
INVENTOR(S): Maa, Yuh-Fun; Zhao, Lu; Prestrelski, Steven Joseph
PATENT ASSIGNEE(S): Powderject Vaccines, Inc., USA
SOURCE: PCT Int. Appl., 52 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001093829	A2	20011213	WO 2001-US18494	20010608
WO 2001093829	A3	20020613		

W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

US 2002120228 A1 20020829 US 2001-877726 20010608
PRIORITY APPLN. INFO.: US 2000-210581P P 20000608
US 2000-590777 A 20000608

Searched by M. Smith

AB A gel-forming free-flowing powder suitable for use as a **vaccine** is prepd. by spray-drying or spray freeze-drying an aq. suspension that contains an antigen adsorbed to an aluminum salt or calcium salt adjuvant, a saccharide, an amino acid or a salt thereof, and a colloidal substance. Powder for **vaccine** purposes are also prepd. by spray freeze-drying an aq. suspension of such an adjuvant having an antigen adsorbed therein. Processes for forming these powder compns. are also described, as well as methods of using the compns. in a **vaccination** procedure. For example, **vaccine** against hepatitis B was prepd. by spray-drying of hepatitis B surface antigen absorbed on aluminum hydroxide using **trehalose**/mannitol/PEG or dextran (3:4:3) as excipients. The quick freezing step in freeze-drying process was a crit. step to **stabilize** the aluminum hydroxide, while excipients may play a less important role. The spray-freeze-dried **vaccines** absorbed on alum can be useful foe immunization via different routes,. e.g., i.m. injection when reconstituted or epidermal powder immunization in a powder form.

IT **99-20-7, Trehalose**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(powder compns. contg. antigen absorbed on adjuvant for **vaccines**)

L15 ANSWER 7 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2001:155898 HCAPLUS
DOCUMENT NUMBER: 134:168305
TITLE: **Trehalose** as protectant for **vaccines** or other biological substances
INVENTOR(S): Zhang, Jing; Zhao, Jun; Li, Ying; Hu, Xiaochen; Dong, Yilan; Wang, Dexian; Zhao, Kejian; Gao, Junfang; Zhao, Weiguang; Jia, Guofu
PATENT ASSIGNEE(S): Changsheng Industry Co., Ltd., Changchun, Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 6 pp. CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1262131	A	20000809	CN 1999-100443	19990129

PRIORITY APPLN. INFO.: CN 1999-100443 19990129

AB **Trehalose** extd. from yeast is used as protectant for biol. prepns. such as attenuated live **vaccine** for hepatitis A, recombinant interferon alpha, beta or gamma, interleukin 2, freeze-dried live **vaccine** for **measles** or parotitis, thymosin, and refined hydrophobia **vaccine**.

IT **99-20-7, Trehalose**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**Trehalose** as protectant for **vaccines** or other biol. substances)

L15 ANSWER 8 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:874736 HCAPLUS
DOCUMENT NUMBER: 135:231554
TITLE: Xerovac: an ultra rapid method for the dehydration and **preservation** of live attenuated **Rinderpest** and Peste des Petits

ruminants vaccines

AUTHOR(S): Worrall, E. E.; Litamoi, J. K.; Seck, B. M.; Ayelet, G.

CORPORATE SOURCE: Ty Mawr, Trefilan, Lampeter, Dyfed, SA48 8RD, UK

SOURCE: Vaccine (2000), 19(7-8), 834-839
CODEN: VACCDE; ISSN: 0264-410X

PUBLISHER: Elsevier Science Ltd.

DOCUMENT TYPE: Journal

LANGUAGE: English

AB The accepted procedure for the long-term **preservation** of live viruses and bacteria in **vaccines** has been lyophilization. We show that thermolabile viruses can be dehydrated in vitro, within 18 h, in an excipient contg. **trehalose**. We further demonstrate that in the resulting dehydrated state, where the viruses are captive in a metastable glass composed of **trehalose**, they are capable of resisting 45.degree.C for a period of 14 days with minimal loss of potency. The degree of thermotolerance achieved matches that of current 'thermostable' lyophilized **vaccines**, but with the distinct advantage of a shorter, cheaper and simpler process. The development and utilization of this process can make significant improvements in current live **virus vaccine** prodn. It presents a further step away from dependence on mandatory low temp. refrigerated storage and could lead to greater confidence in **vaccine stability**, potency and efficacy.

IT **99-20-7, Trehalose.**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(ultra rapid method for the dehydration and **preservation** of live attenuated **Rinderpest** and Peste des Petits **ruminants vaccines**)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 9 OF 16 HCAPLUS COPYRIGHT 2003 ACS

ACCESSION NUMBER: 2000:790612 HCAPLUS

DOCUMENT NUMBER: 133:319293

TITLE: Method for the **preservation** of viruses and mycoplasma

INVENTOR(S): Worrall, Eric Edward

PATENT ASSIGNEE(S): UK

SOURCE: PCT Int. Appl., 24 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000066710	A2	20001109	WO 2000-GB1524	20000503
WO 2000066710	A3	20010208		

W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

EP 1175486	A2	20020130	EP 2000-927438	20000503
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
BR 2000010249	A	20020213	BR 2000-10249	20000503
JP 2002542815	T2	20021217	JP 2000-615735	20000503

PRIORITY APPLN. INFO.:
GB 1999-9999 A 19990504
GB 1999-26698 A 19991112
WO 2000-GB1524 W 20000503

AB A biol.-active material comprising a live **virus** or mycoplasma is **preserved** by a method of desiccation, without lyophilization, in a matrix of glassy **trehalose** having a residual moisture content of not greater than 2%. The method comprises two vacuum drying stages. In a cycle time much shorter than a typical freeze drying process a **virus** or mycoplasma can be **preserved** to provide a material that can be rehydrated to give a **vaccine** having potency.

L15 ANSWER 10 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 2000:68156 HCAPLUS
DOCUMENT NUMBER: 132:113106
TITLE: Orally-administrable therapeutic and/or prophylactic agent for HTLV-1-related diseases
INVENTOR(S): Ohashi, Kunihiro; Kurimoto, Masashi
PATENT ASSIGNEE(S): Kabushiki Kaisha Hayashibara Seibutsu Kagaku Kenkyujo, Japan
SOURCE: Eur. Pat. Appl., 13 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 974358	A2	20000126	EP 1999-305815	19990722
EP 974358	A3	20011010		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
US 6299871	B1	20011009	US 1999-357913	19990721
KR 2000011960	A	20000225	KR 1999-30218	19990724
JP 2000095703	A2	20000404	JP 1999-210030	19990726
US 2002039570	A1	20020404	US 2001-969866	20011004

PRIORITY APPLN. INFO.:
JP 1998-209294 A 19980724
US 1999-357913 A1 19990721

AB Disclosed are an orally-administrable therapeutic and/or prophylactic agent for HTLV-1-related diseases, which comprises an interferon-.gamma. as an effective ingredient and a pharmaceutically-acceptable carrier, and a method for treating and/or preventing the diseases with the agent. The HTLV-1-related diseases include ATL, rheumatoid arthritis, Sjogren's syndrome, SLE, uveitis, and **immunopathies**. A tablet was formulated contg. .gamma.-interferon and **trehalose** (as **stabilizer**) and enteric-coated with hydroxypropyl Me cellulose phthalate.

L15 ANSWER 11 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:419041 HCAPLUS
DOCUMENT NUMBER: 131:233477
TITLE: **Stability** of 17D **yellow fever virus** vaccine using different

stabilizers
AUTHOR(S): Adebayo, A. A.; Sim-Brandenburg, J.-W.; Emmel, H.; Olaleye, D. O.; Niedrig, M.
CORPORATE SOURCE: Robert Koch-Institut, Berlin, 13353, Germany
SOURCE: Biologicals (1998), 26(4), 309-316
CODEN: BILSEC; ISSN: 1045-1056
PUBLISHER: Academic Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB To optimize the thermostability of lyophilized 17D vaccine, the authors investigated parameters important for the freeze-drying process. Six different **stabilizers** with different sugars and amino acids were analyzed in a freeze-thaw cycle for their crystn. characteristics and their **stabilizing** effect under thermal treatment conditions of 37.degree.C for 28 days. This test indicated that three out of six **stabilizers** (B, C, F) kept the vaccine significantly more stable than the three others (A, D, E). Under storing conditions of 4.degree.C over 96 days **stabilizers** A, B and C produced the lowest decrease in titer of about 10% in contrast to **stabilizers** D, E and F with a higher decrease in infectivity titer. Analyzing the **stability** of the 17D vaccine using five different reconstitution solns., we found that 90% D2O shows the best **stabilizing** effect under thermal treatment of 37.degree.C up to 24 h. (c) 1998 The International Association of Biological Standardization.

IT **99-20-7, Trehalose**
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(**stability** of 17D **yellow fever virus** freeze-dried **vaccines** using different **stabilizers**)

REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 12 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1999:194021 HCAPLUS
DOCUMENT NUMBER: 130:227708
TITLE: **Stabilizers** containing recombinant human serum albumin for live **virus** vaccines
INVENTOR(S): Burke, Carl; Volkin, David
PATENT ASSIGNEE(S): Merck & Co., Inc., USA
SOURCE: PCT Int. Appl., 46 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9912568	A1	19990318	WO 1998-US18100	19980901
W: AL, AM, AU, AZ, BA, BB, BG, BR, BY, CA, CN, CU, CZ, EE, GE, HR, HU, ID, IL, IS, JP, KG, KR, KZ, LC, LK, LR, LT, LV, MD, MG, MK, MN, MX, NO, NZ, PL, RO, RU, SG, SI, SK, SL, TJ, TM, TR, TT, UA, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 6210683	B1	20010403	US 1998-140428	19980826

CA 2302282	AA	19990318	CA 1998-2302282	19980901
AU 9890415	A1	19990329	AU 1998-90415	19980901
AU 735330	B2	20010705		
EP 1009434	A1	20000621	EP 1998-942336	19980901
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, PT, IE, SI, LT, LV, FI, RO				
JP 2001518447	T2	20011016	JP 2000-510465	19980901

PRIORITY APPLN. INFO.: US 1997-57937P P 19970905
WO 1998-US18100 W 19980901

AB Compns. are provided for improving the **stability** of live **virus** vaccines contg., e.g., live varicella zoster, **measles**, **mumps**, and **rubella** viruses. Such improved **stabilizers** are aq. solns. contg. recombinant human serum albumin (rHA) as a component at 1-100 g/L. Live **virus** vaccines as well as methods of prepg. live **virus** vaccines contg. the **stabilizers** are also provided. A **stabilizer** compn. contained rHA 25, KCl 0.16, KH2PO4 0.16, NaCl 6.4, NaH2PO4 0.91, Na L-glutamate 1, and sucrose 50 g/L.

IT **99-20-7, Trehalose**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(**stabilizers** for live **virus vaccines** contg. recombinant human serum albumin and sugar alcs. and additives)

REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L15 ANSWER 13 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:756984 HCAPLUS
DOCUMENT NUMBER: 128:39621
TITLE: Use of trehalose in terminal sterilization of biological products
INVENTOR(S): Kampinga, Jaap; Alcock, Robert
PATENT ASSIGNEE(S): Quadrant Holdings Cambridge Limited, UK; Kampinga, Jaap; Alcock, Robert
SOURCE: PCT Int. Appl., 32 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9742980	A1	19971120	WO 1997-GB1317	19970514
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, HU, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2254914	AA	19971120	CA 1997-2254914	19970514
AU 9727845	A1	19971205	AU 1997-27845	19970514
AU 730931	B2	20010322		
ZA 9704179	A	19971210	ZA 1997-4179	19970514
EP 914166	A1	19990512	EP 1997-921969	19970514
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
CN 1225020	A	19990804	CN 1997-196248	19970514

JP 2000511519	T2	20000905	JP 1997-540666		19970514
BR 9709082	A	20011127	BR 1997-9082		19970514
PRIORITY APPLN. INFO.:			US 1996-647515	A	19960514
			WO 1997-GB1317	W	19970514

AB Methods of sterilizing biol. active products, particularly therapeutic or prophylactic products and the compns. obtained thereby are disclosed. The methods include obtaining a dried sample contg. an amt. of trehalose sufficient to render heat **stability** to the product and exposing the dried sample to heating conditions at a temp. and for a duration sufficient to substantially inactivate viruses, esp. non-lipid encapsulated viruses. The drying methods include both ambient drying conditions and lyophilization. The heating conditions include any known in the art and cover a wide range of temps. and heating times. The compns. obtained contain stable products and do not contain measurable infectious **virus**, particularly parvovirus. A stock soln. of 1 mg/mL alk. phosphatase in a 50% trehalose soln. made up in 25 mM HEPES buffer contg. 50 mM ammonium bicarbonate and 2% HSA was spiked with TCID 50/mL canine parvovirus. Then 250 .mu.L aliquots of the spiked formulation were freeze-dried. The log10 redn. in parvovirus titer and redn. in alk. phosphatase activity after terminal sterilization at 90.degree. for 20 h was 4.4 and 7.0 as compared with .gtoreq.4.0 and .gtoreq.99% for the controls contg. sorbitol instead of trehalose.

L15 ANSWER 14 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:510239 HCAPLUS
DOCUMENT NUMBER: 127:113333
TITLE: Oil adjuvant vaccine and method for preparing same
INVENTOR(S): Miyahara, Tokuji; Takase, Kozo; Saito, Koichi; Kishimoto, Yoko; Tokuyama, Satoru
PATENT ASSIGNEE(S): Juridical Foundation the Chemo-Sero-Therapeutic Research Institute, Japan
SOURCE: Eur. Pat. Appl., 25 pp.
CODEN: EPXXDW
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 781559	A2	19970702	EP 1996-308676	19961129
EP 781559	A3	19981216		
R: AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
US 5814321	A	19980929	US 1996-758374	19961129
TW 410158	B	20001101	TW 1996-85114738	19961129
CN 1159914	A	19970924	CN 1996-123100	19961130
JP 09268130	A2	19971014	JP 1996-321777	19961202
PRIORITY APPLN. INFO.:			JP 1995-311964 A	19951130
			JP 1995-311965 A	19951130

AB A water-in-oil type oil adjuvant vaccine comprises (1) 20-90 % of an oil phase which is in a liq. state at ordinary temp., (2) 0.5-30 % of an emulsifying agent comprising a nonionic surfactant which is a partial ester derived from a polyhydric alc. carrying at least 3 OH groups and a fatty acid and which is in a liq. state at 40.degree. and a polyoxyethylene (20-60 mol) hydroxyfatty acid triglyceride, (3) 5-75 %. of an aq. phase contg. a biol. acceptable and effective amt. of antigens, and optionally (4) 0.01-10 % of a nonreducing sugar or a sugar alc. having at least 5 OH groups in the mol. In addn., a water-in-oil-in-water type oil

adjuvant vaccine comprises the foregoing water-in-oil type oil adjuvant vaccine as an internal phase and an outer aq. phase comprising 0.2-20 % of a nonionic surfactant with an overall HLB value of >10. The oil adjuvant vaccines show a high ability to induce an antibody prodn. over a long period of time and are excellent in requirements for medicines such as **stability** and safety. Et oleate (12 parts) was mixed with 1.6 part sorbitan sesquioleate, 0.4 part ethoxylated hydrogenated castor oil, and an aq. phase contg. inactivated Actinobacillus pleuropneumoniae as antigen to give a water-in-oil type oil adjuvant. Pigs were immunized with the above adjuvant and challenged with A. pleuropneumoniae; the immunized group did not become feverish and did not show any abnormality in the clin. symptoms.

IT **99-20-7, Trehalose**
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(water-in-oil type oil adjuvant **vaccines**)

L15 ANSWER 15 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1997:100625 HCAPLUS
DOCUMENT NUMBER: 126:176745
TITLE: **Stabilization** of respiratory syncytial **virus** (RSV) against thermal inactivation and freeze-thaw cycles for development and control of RSV vaccines and immune globulin
AUTHOR(S): Gupta, Chander Kanta; Leszczynski, Jeanne; Gupta, Rajesh K.; Siber, George R.
CORPORATE SOURCE: Chiron Vaccines, Mailstop Q101, Emeryville, CA, 94608, USA
SOURCE: Vaccine (1996), 14(15), 1417-1420
CODEN: VACCDE; ISSN: 0264-410X
PUBLISHER: Elsevier
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A high-titered and stable respiratory syncytial **virus** (RSV) is essential for the development of RSV **vaccines** and quality control of **vaccines** and RSV immune globulin. We increased the **virus** titer of RSV seed stock, and **virus** prepns. made from this seed stock, 100 times by removing defective interfering particles using limiting diln. procedure. RSV prepns. made from the new seed stock had infectivity titers ranging from 107.6 to 108.2 TCID50 per mL for five lots made over a period of 3 yr. Unstabilized RSV lost most of its infectivity at - 86.degree.C within 2-3 wk, at 37.degree.C within 24 h, at 56.degree.C within 3 min and after five freeze-thaw cycles. The high titered **virus** was **stabilized** at - 86.degree.C for 3 yr, at 37.degree.C for 3 days, at 56.degree.C for 6 min and against five freeze-thaw cycles. Most effective **stabilizers** included 25% sucrose, 10% **trehalose** and 45% fetal bovine serum (FBS) in Medium 199 whereas 3.5% DMSO, .gtoreq.45% FBS in phosphate buffered saline, 40% glycerol and 10% sorbitol also **stabilized** RSV to lesser and variable degrees. A mixt. of 0.5% gelatine and 0.3% sodium glutamate **stabilized** the **virus** for a short period whereas 0.1 M MgCl2 and 25% FBS did not **stabilize** the **virus**. The **stabilized** high-titered **virus** is very useful for achieving reproducibility in serol. assays. A broad spectrum of **stabilizers**, such as those evaluated in this study, would be useful in choosing the most suitable formulation for **stabilizing** a live RSV **vaccine**.

IT **99-20-7, Trehalose**
RL: MOA (Modifier or additive use); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(**stabilization** of respiratory syncytial **virus** (RSV) against thermal inactivation and freeze-thaw cycles for development and control of RSV **vaccines** and immune globulin)

L15 ANSWER 16 OF 16 HCAPLUS COPYRIGHT 2003 ACS
ACCESSION NUMBER: 1992:518489 HCAPLUS
DOCUMENT NUMBER: 117:118489
TITLE: Heat-**stabilization** of live **virus** vaccines
INVENTOR(S): Dittmann, Sieghart; Klamm, Horst; Benedix, Armin
PATENT ASSIGNEE(S): Saechsisches Serumwerk GmbH Dresden, Germany
SOURCE: Ger. (East), 3 pp.
CODEN: GEXXA8
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DD 299213	A7	19920409	DD 1988-315349	19880504

PRIORITY APPLN. INFO.: DD 1988-315349 19880504

AB Live **virus** vaccines are temp.-**stabilized** with mixts. of amino acids, a polyhydroxy compd., and a polysaccharide. A mixt. of 10 mL 0.5 mol L-arginine-HCl/L (pH 7), 1.05 mL 40% sucrose and 10.5 mL 6% dextran soln. was filtered and the filtrate (18 mL) added to 12 mL measle **virus**-contg. cell culture supernatant, followed by freezing to -20.degree. and lyophilization. The **virus** titer of the lyophilizate was not affected by storage at 37.degree. for 7 days.

IT **99-20-7, Trehalose**
RL: BIOL (Biological study)
(**stabilizer** contg., for live **virus vaccines**
)

```
show files
File 155:MEDLINE(R) 1966-2003/Jan W2
File   5:Biosis Previews(R) 1969-2003/Jan W2
         (c) 2003 BIOSIS
File  34:SciSearch(R) Cited Ref Sci 1990-2003/Jan W2
         (c) 2003 Inst for Sci Info
File  35:Dissertation Abs Online 1861-2003/Dec
         (c) 2003 ProQuest Info&Learning
File  71:ELSEVIER BIOBASE 1994-2003/Jan W3
         (c) 2003  Elsevier Science B.V.
File  73:EMBASE 1974-2003/Jan W2
         (c) 2003 Elsevier Science B.V.
File  94:JICST-EPlus 1985-2003/Nov W2
         (c)2003 Japan Science and Tech Corp(JST)
File 144:Pascal 1973-2003/Jan W2
         (c) 2003 INIST/CNRS
File 149:TGG Health&Wellness DB(SM) 1976-2003/Jan W1
         (c) 2003 The Gale Group
File 340:CLAIMS(R)/US Patent 1950-03/Jan 14
         (c) 2003 IFI/CLAIMS(R)
File 345:Inpadoc/Fam.& Legal Stat 1968-2002/UD=200302
         (c) 2003 EPO
File 351:Derwent WPI 1963-2002/UD,UM &UP=200303
         (c) 2003  Thomson Derwent
File 357:Derwent Biotech Res. _1982-2003/Jan W2
         (c) 2003 Thomson Derwent & ISI
File 434:SciSearch(R) Cited Ref Sci 1974-1989/Dec
         (c) 1998 Inst for Sci Info
File 440:Current Contents Search(R) 1990-2003/Jan 20
         (c) 2003 Inst for Sci Info
?ds

Set     Items   Description
S1      55364   (CCBPP OR CONTAG?(W) BOVINE?(W) PLEUROPNEUMON? OR RINDERPE-
             ST OR RUMINANT? OR VIRUS? OF MEASLE? OR MUMP? OR RUBELLA? OR -
             YELLOW(W)FEVER? OR POLIO? OR NEWCASTLE(W)DISEASE?) (S)(VACCIN?
              OR IMMUNO?)
S2         17   S1 AND (PRESERV? OR STABIL?) AND TREHALOSE?
?rd
>>>Duplicate detection is not supported for File 340.
>>>Duplicate detection is not supported for File 345.
>>>Duplicate detection is not supported for File 351.

>>>Records from unsupported files will be retained in the RD set.
>>>Record 440:12283793 ignored; incomplete bibliographic data, not retained
 in RD set
>>>Record 440:7745029 ignored; incomplete bibliographic data, not retained
in RD set
...completed examining records
      S3       9  RD (unique items)
?t3/3 ab/1-9
>>>No matching display code(s) found in file(s): 345

 3/AB/1     (Item 1 from file: 155)
DIALOG(R)File 155:MEDLINE(R)

11005717   20567980   PMID: 11115706
   Xerovac: an ultra rapid method for the dehydration and preservation  of
live attenuated  Rinderpest  and Peste des Petits  ruminants   vaccines .
  Worrall E E; Litamoi J K; Seck B M; Ayelet G
  Ty Mawr, Trefilan, Dyfed SA48 8RD, Lampeter, UK. eric@tymawr.demon.co.uk
  Vaccine (ENGLAND)   Nov 22 2000,  19  (7-8)  p834-9,  ISSN 0264-410X
```

Journal Code: 8406899
Erratum in Vaccine 2001 Jul 16;19(28-29) 4086
Document type: Journal Article
Languages: ENGLISH
Main Citation Owner: NLM
Record type: Completed

The accepted procedure for the long-term preservation of live viruses and bacteria in vaccines has been lyophilisation. We show that thermolabile viruses can be dehydrated in vitro, within 18 h, in an excipient containing trehalose . We further demonstrate that in the resulting dehydrated state, where the viruses are captive in a metastable glass composed of trehalose , they are capable of resisting 45 degrees C for a period of 14 days with minimal loss of potency. The degree of thermotolerance achieved matches that of current 'thermostable' lyophilised vaccines, but with the distinct advantage of a shorter, cheaper and simpler process. The development and utilisation of this process can make significant improvements in current live virus vaccine production. It presents a further step away from dependence on mandatory low temperature refrigerated storage and could lead to greater confidence in vaccine stability , potency and efficacy.

3/AB/2 (Item 1 from file: 73)
DIALOG(R)File 73:EMBASE

07723643 EMBASE No: 1999200014
Stability of 17D Yellow Fever virus vaccine using different stabilizers
Adebayo A.A.; Sim-Brandenburg J.-W.; Emmel H.; Olaleye D.O.; Neidrig M.
M. Neidrig, Robert Koch-Institut, Nordufer 20, 13353 Berlin Germany
Biologicals (BIOLOGICALS) (United Kingdom) 1998, 26/4 (309-316)
CODEN: BILSE ISSN: 1045-1056
DOCUMENT TYPE: Journal; Article
LANGUAGE: ENGLISH SUMMARY LANGUAGE: ENGLISH
NUMBER OF REFERENCES: 19

To optimise the thermostability of lyophilized 17D vaccine, the authors investigated parameters important for the freeze-drying process. Six different stabilizers with different sugars and amino acids were analysed in a freeze-thaw cycle for their crystallization characteristics and their stabilizing effect under thermal treatment conditions of 37degreeC for 28 days. This test indicated that three out of six stabilizers (B, C, F) kept the vaccine significantly more stable than the three others (A, D, E). Under storing conditions of 4degreeC over 96 days stabilizers A, B and C produced the lowest decrease in titre of about 10% in contrast to stabilizers D, E and F with a higher decrease in infectivity titre. Analysing the stability of the 17D vaccine using live different reconstitution solutions, we found that 90% Dinf 20 shows the best stabilizing effect under thermal treatment of 37degreeC up to 24 h.

3/AB/3 (Item 1 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01985863 SUPPLIER NUMBER: 73233519 (USE FORMAT 7 OR 9 FOR FULL TEXT)
BIOTECHNOLOGY AND FOOD.(Pamphlet)
McHughen, Alan
Pamphlet by: American Council on Science and Health, 1 Sept,
2000
DOCUMENT TYPE: Pamphlet PUBLICATION FORMAT: Pamphlet LANGUAGE: English

RECORD TYPE: Fulltext TARGET AUDIENCE: Consumer
WORD COUNT: 13615 LINE COUNT: 01182

3/AB/4 (Item 2 from file: 149)
DIALOG(R)File 149:TGG Health&Wellness DB(SM)

01916340 SUPPLIER NUMBER: 62852845 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Insulin for the world's poorest countries.(Statistical Data Included)(Brief Article)(Letter to the Editor)
Watts, Theresa E; Lester, Frances T; Arya, Subhash C; Chantelau, Ernst; Teuscher, A; Wiedenmayer, K; Teuscher, T; Yudkin, John S
The Lancet, 355, 9221, 2165
June 17,
2000
DOCUMENT TYPE: Statistical Data Included; Brief Article; Letter to the Editor PUBLICATION FORMAT: Magazine/Journal; Refereed ISSN: 0099-5355
LANGUAGE: English RECORD TYPE: Fulltext TARGET AUDIENCE: Professional
WORD COUNT: 2454 LINE COUNT: 00206

3/AB/5 (Item 1 from file: 340)
DIALOG(R)File 340:CLAIMS(R)/US Patent

Dialog Acc No: 3575901 IFI Acc No: 0135249
Document Type: C
SOLID DOSE DELIVERY VEHICLE AND METHODS OF MAKING SAME; POLYOL AND A BIOACTIVE AGENT WHEREIN SAID POLYOL IS AMORPHOUS OR NON-CRYSTALLINE AND STABILIZES SAID BIOACTIVE AGENT, AND WHEREIN SAID THERAPEUTIC COMPOSITION IS A POWDER SUITABLE FOR ADMINISTRATION BY INHALATION
Inventors: Blair Julian (GB); Colaco Camilo (GB); Kampinga Jaap (NL); Roser Bruce J (GB)
Assignee: Quadrant Holdings Cambridge Ltd GB
Assignee Code: 41605
Publication (No,Date), Applic (No,Date):
US 6290991 20010918 US 94349029 19941202
Calculated Expiration: 20180918
Priority Applic(No,Date): US 94349029 19941202

Abstract: The present invention encompasses a solid dose delivery vehicle for ballistic administration of a bioactive material to subcutaneous and intradermal tissue, the delivery vehicle being sized and shaped for penetrating the epidermis. The delivery vehicle further comprises a stabilizing polyol glass loaded with the bioactive material and capable of releasing the bioactive material in situ. The present invention further includes methods of making and using the solid dose delivery vehicle of the invention.

3/AB/6 (Item 1 from file: 351)
DIALOG(R)File 351:Derwent WPI

013596620
WPI Acc No: 2001-080827/200109
XRAM Acc No: C01-023329
Preserving biologically active material, particularly viruses such as measles, mumps, and rubella, comprises mixing a biological suspension with a sterile mixture of chitosan
Patent Assignee: WORRALL E E (WORR-I)

Inventor: WORRALL E E
Number of Countries: 094 Number of Patents: 004
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 200078924	A1	20001228	WO 2000GB2254	A	20000621	200109	B
AU 200054135	A	20010109	AU 200054135	A	20000621	200122	
EP 1187907	A1	20020320	EP 2000938911	A	20000621	200227	
			WO 2000GB2254	A	20000621		
CN 1357037	A	20020703	CN 2000809328	A	20000621	200265	

Priority Applications (No Type Date): GB 9914412 A 19990622
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 200078924	A1	E	24	C12N-001/04	
	Designated States (National): AE AG AL AM AT AU AZ BA BB BG BR BY CA CH CN CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW				
	Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TZ UG ZW				
AU 200054135	A			C12N-001/04	Based on patent WO 200078924
EP 1187907	A1	E		C12N-001/04	Based on patent WO 200078924
	Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI				
CN 1357037	A			C12N-001/04	

Abstract (Basic): WO 200078924 A1
Abstract (Basic):

NOVELTY - Preserving biologically-active material, comprising mixing an aqueous suspension of the material with a sterile aqueous solution of chitosan to form a coacervate, adding a sterile aqueous solution of trehalose , drying the mixture at low pressure, and at a temperature, initially no more than 37 degrees C, which is subsequently controlled not to fall to 0 degrees C or below to form a glassy porous matrix, is new.

DETAILED DESCRIPTION - INDEPENDENT CLAIMS are also included for the following:

(1) making a vaccine, comprising preserving a biologically active material using the novel method, and rehydrating the glassy product in an aqueous medium; and

(2) a rehydratable composition comprising trehalose in the form of a metastable containing, within the matrix, desiccated biologically material and chitosan or its non-toxic salt.

USE - The process is used to preserve viruses (e.g. Rinderpest virus, Peste de Petit Ruminants virus, Measles, Mumps, Rubella, Yellow Fever, Polio and Newcastle Disease Virus), bacteria, Contagious Bovine Pleuropneumonia (CBPP) mycoplasma, tertiary structured biologically-active protein and nucleic acid (all claimed).

pp; 24 DwgNo 0/0

3/AB/7 (Item 2 from file: 351)
DIALOG(R)File 351:Derwent WPI

012408808
WPI Acc No: 1999-214916/199918
XRAM Acc No: C99-063294
Stabilization of vaccine containing live virus, e.g. varicella zoster
Patent Assignee: MERCK & CO INC (MERI)
Inventor: BURKE C; VOLKIN D
Number of Countries: 082 Number of Patents: 006

Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 9912568	A1	19990318	WO 98US18100	A	19980901	199918	B
AU 9890415	A	19990329	AU 9890415	A	19980901	199932	
EP 1009434	A1	20000621	EP 98942336	A	19980901	200033	
			WO 98US18100	A	19980901		
US 6210683	B1	20010403	US 9757937	A	19970905	200120	
			US 98140428	A	19980826		
AU 735330	B	20010705	AU 9890415	A	19980901	200143	
JP 2001518447	W	20011016	WO 98US18100	A	19980901	200176	
			JP 2000510465	A	19980901		

Priority Applications (No Type Date): US 9757937 P 19970905; US 98140428 A 19980826

Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 9912568	A1	E	46	A61K-045/00	
Designated States (National): AL AM AU AZ BA BB BG BR BY CA CN CU CZ EE GE HR HU ID IL IS JP KG KR KZ LC LK LR LT LV MD MG MK MN MX NO NZ PL RO RU SG SI SK SL TJ TM TR TT UA US UZ VN YU					
Designated States (Regional): AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW NL OA PT SD SE SZ UG ZW					
AU 9890415	A				Based on patent WO 9912568
EP 1009434	A1	E		A61K-045/00	Based on patent WO 9912568
Designated States (Regional): AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MK NL PT RO SE SI					
US 6210683	B1			A61K-039/25	Provisional application US 9757937
AU 735330	B			A61K-045/00	Previous Publ. patent AU 9890415
					Based on patent WO 9912568
JP 2001518447	W		42	A61K-039/00	Based on patent WO 9912568

Abstract (Basic): WO 9912568 A1

Abstract (Basic):

NOVELTY - Live virus vaccines are stabilized by addition of recombinant human serum albumin (rHA).

DETAILED DESCRIPTION - A stabilizer (I) for live virus vaccines comprises an aqueous solution containing:

(a) rHA at 1-100 (preferably 5-50, especially 10-30) g/l;

(b) a sugar or sugar alcohol at 20-90 g/l;

(c) a mono- or dibasic alkali metal phosphate salt (or mixture) at a total phosphate concentration of 0.5-3 g/l;

(d) an alkali metal glutamate at 0.5-2 g/l; and

(e) a combination of sodium and potassium chlorides providing a total chloride concentration of 4-10 g/l.

INDEPENDENT CLAIMS relate to:

(1) several minor variants on the basic rHA-based composition of (I), e.g. in which some components are in the form of a tissue culture medium;

(2) live virus vaccines containing at least one of varicella zoster, measles, mumps and rubella viruses and 0.1-10 (preferably 0.5-3, especially 1-3) % w/v of rHA;

(3) the preparation of a live virus vaccine by mixing at least one virus as in (2) with (I), preferably at a virus preparation to (I) ratio of 1:1-100 (preferably 1:2 or 1:2); and

(4) a method of harvesting varicella zoster virus involving disrupting cells containing the virus in the presence of (I).

USE - The vaccine is especially against varicella zoster, measles, mumps and/or rubella virus (all claimed), but may also be against other viruses such as influenza, polio , hepatitis, rotavirus or herpes simplex-1 or -2.

ADVANTAGE - The stabilizer directly stabilizes the live virus against inactivation and protects against physical collapse of the

vaccine preparation in the lyophilized state. The inclusion of recombinant human serum albumin (rHA) results in improved stability of the vaccines in both the liquid and solid states, as well as improved yields during harvest of the virus for vaccine preparation. Use of rHA (rather than e.g. non-recombinant human serum albumin or gelatin) provides a stabilizer free of products of animal origin.
pp; 46 DwgNo 0/1

3/AB/8 (Item 3 from file: 351)
DIALOG(R)File 351:Derwent WPI

009165552
WPI Acc No: 1992-292986/199236
XRAM Acc No: C92-130262
Stabilising live virus vaccine against high temp. - by mixing with arginine, sugar and dextran, then lyophilisation, esp. for measles vaccine, storable at 37 deg. C
Patent Assignee: INST HYGIENE MIKROBIOLOGIE & EPIDEMIOLOG (HYGI-N); SAECHSISCHES SERUMWERK GMBH DRESDEN (SACH)
Inventor: BENEDIX A; DITTMANN S; KLAMM H
Number of Countries: 001 Number of Patents: 001
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
DD 299213	A7	19920409	DD 315349	A	19880504	199236	B

Priority Applications (No Type Date): DD 315349 A 19880504
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
DD 299213	A7		3	A61K-039/165	

Abstract (Basic): DD 299213 A
A live virus vaccine is stabilised against the effects of temp. by using a stabiliser mixt. (A) based on amino acids, polyhydroxy cpds. and polysaccharides. The novelty is that the harvested virus-contg. cell culture supernatant is treated with a mixt. of (a) L-Arg; (b) sucrose, sorbitol or trehalose and (c) dextran of mol. wt. 40-70 kD in wt. ratio 5:2:3. After freeze-drying the prod. has max. residual moisture content of 0.4wt.%.
The wt. of stabiliser is pref. 20-40mg per inoculation dose and the vol. ratio cell culture medium to stabiliser mixt. is 2:3.
USE/ADVANTAGE - The method is esp. applied to live measles vaccine (opt. also contg. vaccines against mumps and/or rubella) and provides a prod. which satisfies the WHO standards for temp. stability (less than one log10 loss of activity after 7 days at 37 deg.C). The vaccine is thus suitable for use in (sub)tropical as well as temp. regions.
Dwg.0/0

3/AB/9 (Item 4 from file: 351)
DIALOG(R)File 351:Derwent WPI

007968628
WPI Acc No: 1989-233740/198932
XRAM Acc No: C89-104080
Preservation of live viruses - by drying in frozen state or at ambient temp. in presence of trehalose
Patent Assignee: QUADRANT BIORESOURCES LTD (QUAD-N); FANUC LTD (FUFA)
Inventor: ROSER B J; BRUCE R J

Number of Countries: 019 Number of Patents: 010
Patent Family:

Patent No	Kind	Date	Applicat No	Kind	Date	Week	
WO 8906542	A	19890727	WO 89GB47	A	19890118	198932	B
ES 2009704	A	19891001	ES 89206	A	19890120	199002	
EP 357709	A	19900314	EP 89901874	A	19890118	199011	
JP 2503266	W	19901011	JP 89501732	A	19890118	199047	
CS 8900402	A2	19920115	CS 89402	A	19890120	199232	
US 5149653	A	19920922	WO 89GB47	A	19890118	199241	
			US 89411473	A	19891120		
EP 357709	B1	19930929	EP 89901874	A	19890118	199339	
			WO 89GB47	A	19890118		
DE 68909542	E	19931104	DE 609542	A	19890118	199345	
			EP 89901874	A	19890118		
			WO 89GB47	A	19890118		
JP 94071423	B2	19940914	JP 89501732	A	19890118	199435	
			WO 89GB47	A	19890118		
CA 1333562	C	19941220	CA 588875	A	19890123	199508	

Priority Applications (No Type Date): GB 881338 A 19880121
Patent Details:

Patent No	Kind	Lan	Pg	Main IPC	Filing Notes
WO 8906542	A	E	16		
Designated States (National): BR GB HU JP SU US					
Designated States (Regional): AT BE CH DE FR GB IT LU NL SE					
EP 357709	A	E			
Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE					
US 5149653	A		4	C12N-007/00	Based on patent WO 8906542
EP 357709	B1	E	6	A61K-039/12	Based on patent WO 8906542
Designated States (Regional): AT BE CH DE FR GB IT LI LU NL SE					
DE 68909542	E			A61K-039/12	Based on patent EP 357709
					Based on patent WO 8906542
JP 94071423	B2		4	C12N-007/00	Based on patent JP 2503266
					Based on patent WO 8906542
CS 8900402	A2			C12N-007/06	
CA 1333562	C			C12N-007/00	

Abstract (Basic): WO 8906542 A

Preserving live viruses comprises subjecting an aq. system contg. the virus to drying either in the frozen state or at ambient temp. in the presence of trehalose .

Pref., the aq. system contains 1-20 (esp. 5-20) wt.% of trehalose .

USE/ADVANTAGE - Trehalose added to the viral medium during drying enables live viruses to be preserved and subsequently reconstituted while retaining substantially all their immunogenic or other useful properties, including viability. Stable dry formulations of vaccines such as polio and influenza viruses are now possible which do not have to be kept refrigerated (cf. aq. live virus vaccines presently available).

Dwg.0/0

Abstract (Equivalent): EP 357709 B

A method of preserving live viruses comprising subjecting an aqueous system containing the virus to drying either in the frozen state or at ambient temperature, in the presence of trehalose .

Dwg.0/0

Abstract (Equivalent): US 5149653 A

Preservation of an infectious virion for subsequent reconstitution comprises subjecting an aq. soln. contg. the virion and trehalose to drying either in the frozen state or at ambient temp, so as to produce a preserved virion which is infectious on reconstitution. 1-20, pref 5-20% trehalose is used.

Searched by M. Smith

USE/ADVANTAGE - Preservation of infectious virions which retain their infectivity or other useful activity. For preserving vaccines eg. polio and influenza. (Dwg.0/0)

```
?ds

Set     Items   Description
S1      55364   (CCBPP OR CONTAG?(W) BOVINE?(W) PLEUROPNEUMON? OR RINDERPE-
             ST OR RUMINANT? OR VIRUS? OF MEASLE? OR MUMP? OR RUBELLA? OR -
             YELLOW(W)FEVER? OR POLIO? OR NEWCASTLE(W)DISEASE?) (S)(VACCIN?
              OR IMMUNO?)
S2         17   S1 AND (PRESERV? OR STABIL?) AND TREHALOSE?
S3          9   RD (unique items)
S4         15   COACERVATE? AND TREHALOSE?
S5         14   S4 NOT S3
S6          1   S5 AND (DRY? OR DEHYDRAT? OR DESSIC?) NOT (FREEZ? OR CRYO?)
S7          0   S6 NOT S5
?
```